AMENDMENTS TO THE SPECIFICATION of SN 09/886,909

Amend the cited paragraphs as follows.

[0030] Coupled to the output of filter 7 via lead 6, the power that is input into the primary of transformer 11 is transformed and the transformed power is output from the transformer secondary to an output regulator 25. In addition to providing voltage regulation, regulator 25 converts the inputted voltage to a higher voltage, and is capable of being controlled by digital control signals, such as may be supplied by a microprocessor. The MAXIM Company markets regulators of the foregoing type. The output of regulator 25 is coupled into an output filter 27, which filters the DC voltage. The output of that filter is coupled to a "hold-up" capacitance 29, and to a second input to electronic switch 23. Output filter 27, like filter 21, is an electronically controllable filter of known construction. Control unit 15 includes an output that connects to the control input of filter 27, as indicated by line 57. The filter serves as an output of the power conditioning branch or channel. The resistance characteristics of filter 27 may be controlled by control voltages applied to a control input, not illustrated, by control unit 15, the purpose of which is described later herein in the discussion of the operation of the power supply.

[0031] In addition to control of transformer 11 and filter 27, control unit 15 also controls output regulator 25 and provides a "power on reset" signal, when appropriate, over a separate bus 16 to LRMs 3 and 5 and also supplies another "BIT" information, earlier ~~describe~~ described, to the external monitoring stations. The output of electronic switch 23 is applied to the secure processing circuits and the memory input of LRM 3, supplying, as example, 5.0V when normal power is being supplied to LRM 1 and 4.5V when the LRM 1 is supplying battery back up power.

[0033] Power sensors 51 and 52 are provided to monitor the respective power flowing into each of the two circuit paths at 6 and 8, that is, monitor both the voltage and current, individually, at the respective outputs of filter 7. The outputs of those sensors are coupled through an input ~~sense~~ sensor unit 53, which in turn connects to respective inputs of microcontroller 14. A third power sensor 54, referred to as an emanations

sensor, monitors the voltage and current output of output filter 21, and couples the information to another input of the microcontroller. A fourth power sensor 55, also referred to as an emanations sensor, monitors the voltage and current output at the output of filter 27, and couples the information to still another input of microcontroller 14.

[0034] In normal operation of the CNI avionics system, the generator of the aircraft (in which the embodiment of the invention is installed) supplies prime power to input 2 of the LRM power module at TEMPEST filter 7. Typically that power is supplied at a voltage of 28 volts ~~DC~~ AC. The filter is an active filter of known design, which contains, among other things, a transformer, inductors, capacitors and shunt diodes. Filter 7 is designed to prevent electromagnetic energy from entering or exiting the system over the electrical leads and thereby serves to provide some electrical isolation of the power supply unit. The filtered AC voltage is applied via lead 8 to battery charger 9 and via lead 6 to the primary winding of electrical transformer 11 of the power conditioning circuit.

[0070] The LRM module 1 that houses the foregoing elements of power ~~conditioner 1~~ conditioner is a thin flat elongate rectangular shaped container or housing 29, such as shown in Figs. 5 and 6. As an example, LRM module 1 may be about six inches by six inches in height and width, and about six-tenths of an inch thick. However, LRM module 1 may have many other shapes in accordance with this ~~insertion~~ invention. Primary transformer 11, output regulator 25, output filter 27 and hold-up capacitance 29, illustrated in Fig. 1, are packaged together into a single assembly 35, referred to as the "Red Power Converter" that fits inside the LRM module as illustrated. Battery 17 fits alongside the foregoing assembly 35. A single multi-layer printed circuit card 31, to which the remaining electronic components of the LRM, earlier identified, are mounted, is located at the bottom end of the housing. The card is electrically wired by appropriate leads to the lead ends of a multi-contact or pin connector 33, which is located at the bottom end and closes that end of the housing.